

Summer Institute for High School Science Teachers

SPONSORED BY

The National Science Foundation

AND

Alabama College

FOR THE IMPROVEMENT OF HIGH SCHOOL SCIENCE TEACHING



BULLETIN

ALABAMA COLLEGE
MONTEVALLO, ALABAMA
JUNE 8 - JULY 17, 1959

THE SUMMER INSTITUTE FOR HIGH SCHOOL SCIENCE TEACHERS

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ALABAMA COLLEGE

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The aims of the Institute are: (1) To improve the subject matter competence of teachers of science, to acquaint these teachers with recent developments in the science areas, and to suggest useful and pertinent ways of illustrating and demonstrating principles of science in the classroom, laboratory and field. (2) To strengthen the capacity of these teachers to motivate students to consider careers in science. (3) To bring these teachers into personal contact with the highly productive scientists who will make up the staff of the Institute, with the view of stimulating interest and increasing their prestige professionally.

GENERAL INFORMATION

ADMISSION

The Institute is open to high school and junior high school science teachers who hold a bachelor's degree, who expect to continue teaching in these areas, and who are eligible to be admitted as a student to Alabama College.

LOCATION

Located at Montevallo, a town near the exact center of the State, Alabama College is accessible by railroad and highway. Montevallo is served by state highways 25, 119 and 155, and is seven miles from U. S. 31, major north-south highway connecting Birmingham and Montgomery. Montevallo is 32 miles south of Birmingham, via U. S. 31 to Siluria and state highway 119 from Alabaster to Montevallo. It is 60 miles north of Montgomery.

STIPENDS

The National Science Foundation has made available 60 stipends for the support of teachers who participate in the Institute. Those teachers who are granted stipends will receive the following amounts:

1. \$75.00 per week for six weeks or a total of \$450.00.
2. \$15.00 per week for each dependent for six weeks or a total of \$90.00 for each dependent up to a maximum of 4 dependents. The number of dependents must correspond to the number reported on the participant's Federal Income Tax return.
3. A travel allowance of 4c per mile for one round trip from the participant's home to Alabama College. A maximum of \$80.00 is allowed.
4. All College fees.

The payment of stipends will be made in two installments, one-half at the beginning of the Institute and the remaining portion after the first three weeks of the program.

The participant must pay the cost of living accommodations, books, and other personal expenses. The cost of room, board, and laundry listed below must be paid at the time of registration unless special arrangements are made with the Business Office.

AWARDING OF STIPENDS

The necessary application forms are included with this brochure and must be submitted along with a complete college transcript and three letters of recommendation (one must be from the applicant's principal or superintendent; the other two should be from people who know of the person's teaching ability, etc.), to the Director of the Institute not later than **February 16, 1959**, to be assured of consideration. A committee composed of the Dean of the College and the Institute Staff will review each application carefully and will recommend those teachers to be awarded stipends. Those who are selected to receive the stipend will be notified on or before **March 16, 1959**, and must accept or decline the stipend on or before **April 1, 1959**. Applicants who are not selected to receive stipends will likewise be notified on or before March 16, 1959.

The committee responsible for selecting the teachers who will receive stipends will make an effort to select those who are likely to benefit most by participating in the Institute, that is, teachers who need additional training in one of the subject matter areas which they teach. The fact that a teacher is selected to receive one of the stipends will indicate the confidence of the committee in the applicant's potential to grow in competence as a teacher. Those teachers who are above 50 years of age

and those with less than three years teaching experience will generally not be considered except under special circumstances.

At the time the teacher is notified of his selection to receive a stipend he will be asked to submit the regular application for admission to Alabama College. The student's record will be evaluated by the Dean of the College and the Registrar, and will be notified of his status.

A limited number of students will be permitted to attend the Institute at their own expense.

COLLEGE CREDIT

Applicants may enroll in the Graduate Division at Alabama College and receive graduate credit for courses taken in the Institute. These credits may be applied toward completing the requirements for the Master's Degree in teaching in one of the science areas or in a general science program, provided the applicant meets the requirements of the Graduate Division. A maximum of six semester hours credit may be earned during the six weeks period.

LIVING ACCOMMODATIONS

All participants who receive a National Science Foundation stipend will be expected to live in one of the College dormitories. Family accommodations are also available on campus. Meals will be available in the College dining room.

The cost of room, board, and laundry for the six weeks period will be \$90.00 for each adult person. Single room accommodations will cost an additional \$10.00. Children under 8 years of age will pay 1/2 of room, board, and laundry. A child 8 years of age and under 12 will pay 2/3 of the regular rate. Any child 12 and over will pay full price for room, board, and laundry.

Children of Institute personnel will be given preference as to places in the elementary and high school demonstration school. The minimum age for the kindergarten group is 5 years. Children registering for the elementary school will be charged \$10.00 for the six weeks session and those in high school will pay \$15.00. Registration for children should be made directly with the Director of Summer School.

Sailing on college lake



Tennis, golf, swimming, and archery are popular summer sports

RECREATION

Alabama College offers excellent summer recreational facilities. The College's 26-acre lake located just off-campus offers unusual opportunities for boating and fishing. In addition, a swimming program is available as well as golf, tennis, volley ball, etc. Coffee hours will be given from time to time so that Institute participants may have a better opportunity to meet and talk with staff members and visiting lecturers who may come to the campus.

COURSES OF STUDY

All courses offered within the Institute are designed primarily for the high school science teacher who needs additional training in a particular area or who has not had an opportunity to take a refresher course over a period of several years. The specific courses within the Institute are listed below.

1. Biology 501, Advanced General Biology. 4 semester hours credit, 8:00-11:00 MTWThF.

This course will cover the basic biological principles essential for the high school teacher. Recent advances and current ideas will be emphasized. Aside from fundamental concepts, some attention will be given to field work as well as the handling of materials used in the high school biology and general science laboratory. 15 hours per week: lectures, discussion, and demonstrations.

2. Chemistry 521. Advanced General Chemistry. 4 semester hours credit, 8:00-11:00 MTWThF.

The modern fundamental and basic ideas of general chemistry will be presented with a view toward helping the science teacher enrich his course as presented to his classes. Lecture demonstrations will be stressed and methods of presenting these demonstrations in the most effective manner will be given consideration. 15 hours per week: lectures, demonstrations, and discussion.



Well-Equipped Laboratories

3. Physics 501. Advanced General Physics. 4 semester hours credit. 8:00-11:00 MTWThF.

Emphasis will be placed upon the laws, principles, and ideas from classical physics that will be needed for an understanding of the developments in modern and contemporary science. 15 hours per week: lectures, demonstrations, and discussions.

4. Mathematics for the Sciences.

This course will be a part of the biology, chemistry, and physics courses outlined above and is designed to aid the student in outlining a logical method of attack in the solution of problems in the sciences. Stress will be placed on the scientific, physical and mathematical concepts involved in problem solving. Since this course will be closely coordinated with the principles being discussed in the biology, chemistry, and physics courses, the instructor will meet with the people taking the physics course mentioned above for four hours each week, the chemistry people for four hours, and the biology people for two hours each week for the purpose of going over with them the necessary mathematical background for the particular principles being discussed in the course for which they are registered.



Laboratory Demonstrations as Teaching Techniques

5. Science 451 Selected topics in Biology, Chemistry, and Physics. 2 semester hours credit. 11:00-12:00 MTWThF.

This course will consist of a series of lectures given by visiting scientists in fields not specifically covered in other courses available to Institute participants. The exact title of lectures will be announced later. Visiting lecturers are:

Dr. Eric Rogers, Professor of Physics and Dean of the Graduate School, University of Alabama

Dr. Carl K. Seyfert, Professor of Astronomy and Physics, Vanderbilt University

Dr. Paris B. Stockdale, Professor of Geology and Geography, University of Tennessee

Dr. Fredrick K. Morris, Professor Emeritus of Geology, Massachusetts Institute of Technology

Dr. Alvin Nason, Professor of Biochemistry, Johns Hopkins University



Prominent Scientists Serve as Guest Lecturers

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A black and white photograph showing four individuals standing in front of a large, dark sign with white lettering that reads "ORDNANCE CORPS REDSTONE ARSENAL". From left to right: a woman in a dark, sleeveless dress; a woman in a dark, sleeveless dress; a man in a light-colored, short-sleeved button-down shirt and dark trousers; and a woman in a light-colored, short-sleeved suit. They are all smiling and appear to be in conversation. The background is slightly out of focus, showing some foliage and a building.



An exhibit of available teaching materials for the high school science teacher will be on display throughout the six weeks period. These materials are furnished by publishers of textbooks and reference materials, as well as by various scientific organizations interested in the improvement of high school science teaching.



Archaeological Dig



1958 Institute



Field Trips

All applications and requests for additional information should be addressed to:

DR. PAUL C. BAILEY
ALABAMA COLLEGE
MONTEVALLO, ALABAMA

An atmosphere of genuine scholarship and of democracy prevail at Alabama College. Respect for individual personality allows freedom of thought and conduct. Alabama College students recognize that honest effort in study and personal responsibility lead to a happy, profitable future.

A PART OF ALABAMA COLLEGE'S
106 ACRE MAIN CAMPUS



Alabama College's 106 acre main campus is considered to be one of the beauty spots of the South. Spacious lawns, stately trees and an unusual number of flowers and shrubs contribute to the natural attractiveness of the campus. More than 30 buildings are included in the physical facilities of the College. The unmatched recreational facilities of Alabama College include a nine hole golf course, 28 acre lake, battery of twelve tennis courts and complete facilities for nearly all team and individual sports.

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